

## Enhanced Die Down Ball Grid Array and Method for Making the Same

### *Abstract*

5 An apparatus, system, and method for assembling a ball grid array (BGA) package is described. A stiffener/heat spreader is provided. A substrate has a first surface and a second surface. The substrate has a central window-shaped aperture that extends through the substrate from the first substrate surface to the second substrate surface. The first substrate surface is attached to a surface of the stiffener/heat spreader. A portion of the stiffener/heat spreader is accessible through the central window-shaped aperture. An IC die has a first surface and a second surface. The first IC die surface is mounted to the accessible portion of the stiffener/heat spreader. A drop-in heat spreader has a surface that is mounted to the second IC die surface.

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